## **Description of the RUG-III Classification System**

RUG-III is a 44-group model for classifying nursing home residents into homogenous groups according to common health characteristics and the amount and type of resources they use (see Table A-1 for a description of the 44 groups). Residents are classified based on residents' clinical conditions, extent of services used, and functional status. The groups are in seven general categories (in general order of costs associated with caring for residents): rehabilitation, extensive services, special care, clinically complex, impaired cognition, behavior problems, and reduced physical function.

The RUG-III system was developed as part of the multi-state Nursing Home Case Mix and Quality (NHCMQ) demonstration project. The classification system was designed using resident characteristics from the Minimum Data Set (MDS) and wage-weighted staff time. It was developed based on analysis of the 1990 and 1995 Staff Time Measurement studies conducted by CMS.

The first level of the RUG-III system is a hierarchy of major resident types, representing groups of residents with certain clinical conditions. These include rehabilitation, extensive services, special care, clinically complex, impaired cognition, behavior only, and reduced physical functioning (See Table A-1 for definitions of these categories). The rehabilitation category, which includes those with the most intensive need for services, is divided into five levels of intensity, based on the total minutes of therapy received per week, the days of therapy per week, and the number of different types of therapy received. Residents whose clinical conditions do not require skilled therapy are classified into lower categories, which descend in order of severity, the number of services used, and the amount of time and resources required to care for the resident. The seven major groups are further split based on the ADLs that the residents accomplish or other end splits (e.g., presence of nursing rehabilitation.)

| The RUG-III classification system Category   | ADL                | End splits                    | RUG-III<br>group |
|--|--------------------|-------------------------------|------------------|
|  | index <sup>A</sup> |                               |                  |
| 1) Rehabilitation  |                    |                               |                  |
| Ultra high rehabilitation (At least 720 minutes of therapy received per week with 5  | 16-18              | Not used                      | RUC              |
| or more days for one type of therapy and at least 3 days for a second type)  | 9-15               | Not used                      | RUB              |
|  | 4-8                | Not used                      | RUA              |
| Very high rehabilitation (At least 500 minutes of therapy received per week with 5   | 16-18              | Not used                      | RVC              |
| or more days for one type of therapy)  | 9-15               | Not used                      | RVB              |
|  | 4-8                | Not used                      | RVA              |
| High rehabilitation (At least 325 minutes of therapy received per week with 5 or   | 13-18              | Not used                      | RHC              |
| more days per week for one type of therapy)  | 8-12               | Not used                      | RHB              |
| 7 1 137  | 4-7                | Not used                      | RHA              |
| Medium rehabilitation (At least 150 minutes of therapy received per week with 5 or   | 15-18              | Not used                      | RMC              |
| more days of some type of therapy)   | 8-14               | Not used                      | RMB              |
|  | 4-7                | Not used                      | RMA              |
| Low rehabilitation (At least 45 minutes of therapy received per week with 3 or more  | 14-18              | Not used                      | RLB              |
| days of some type of therapy and 2 or more nursing rehabilitation activities at least 6  | 4-13               | Not used                      | RLA              |
| days per week each.  |                    |                               |                  |
| Extensive services (Resident qualifies for extensive services on the basis of clinical   | 7-18               | Count of other categories     | SE3              |
| indicators. Qualifications include receipt of parenteral/IV feeding, IV medication, the  | 7-18               | code into plus IV medications | SE2              |
| special care category, the clinically complex category, and the impaired cognitition category. ADL index score must be 7 or higher– otherwise classify resident into special care) | 7-18               | + feeding                     | SE1              |

| The RUG-III classification system Category   | ADL                | End splits                   | RUG-III<br>group |  |
|--|--------------------|------------------------------|------------------|--|
|  | index <sup>A</sup> |                              |                  |  |
| 2.) Special care (Resident qualifies for extensive services on the basis of clinical     | 17-18              | Not used                     | SSC              |  |
| ndicators. Qualifications include an ADL score of 7 or more plus any of the ollowing:    | 15-16<br>7-14      | Not used<br>Not used         | SSB<br>SSA       |  |
| Two or more ulcers of any type or a stage 3 or 4 pressure                                |                    |                              |                  |  |
| ulcer and two or more selected skin care treatments;                                     |                    |                              |                  |  |
| <ul> <li>Feeding tube with parenteral/enteral intake and aphasia;</li> </ul>             |                    |                              |                  |  |
| <ul> <li>Surgical wounds or open lesions other than ulcers, rashes,</li> </ul>           |                    |                              |                  |  |
| or cuts and surgical wound care or application of dressings or                           |                    |                              |                  |  |
| ointments;   |                    |                              |                  |  |
| <ul> <li>Respiratory therapy for 7 days;</li> </ul>                                      |                    |                              |                  |  |
| <ul> <li>Cerebral palsy and an ADL score of 10 or more;</li> </ul>                       |                    |                              |                  |  |
| <ul> <li>Fever and vomiting or weight loss or tube feeding with high;</li> </ul>         |                    |                              |                  |  |
| parenteral/enteral intake, pneumonia, or dehydration;                                    |                    |                              |                  |  |
| <ul> <li>Multiple sclerosis and an ADL score of 10 or more;</li> </ul>                   |                    |                              |                  |  |
| <ul> <li>Quadriplegia and an ADL score of 10 or more; and</li> </ul>                     |                    |                              |                  |  |
| Radiation therapy  |                    |                              |                  |  |
| B.) Clinically complex (Resident qualifies for extensive services on the basis of        | 17-18D             | Signs of depression          | CC2              |  |
| clinical indicators. Qualifications include any of the following: feeding tube with high | 17-18              |                              | CC1              |  |
| parenteral/enteral intake; comatose and not awake and ADL dependent; septicemia;         | 12-16D             |                              | CB2              |  |
| second or third degree burns; dehydration; hemiplegia/hemiparesis and an ADL             | 12-16              |                              | CB1              |  |
| score of ten or more; internal bleeding; pneumonia; end stage disease;                   | 4-11D              |                              | CA2              |  |
| chemotherapy; dialysis; physician order changes on 4 or more days and physicians         | 4-11               |                              | CA1              |  |
| visits on 1 or more day; physician order changes on 2 or more days and physician         |                    |                              |                  |  |
| visits on 7 days; diabetes and injections on 7 days and physician order changes on 2     |                    |                              |                  |  |
| or more days; transfusions; oxygen therapy; application of dressing to foot and          |                    |                              |                  |  |
| njection on foot or open lesion on foot)   | 0.40               | De est de execuelte e        | IDO              |  |
| L) Impaired cognition (Resident must have an ADL index of ten or less and a              | 6-10               | Receiving nursing            | IB2              |  |
| Cognitive Performance Scale of 3 or more, indicating moderate, moderately severe,        | 6-10               | rehabilitation               | IB1              |  |
| severe, or very severe impairment)   | 4-5                | Not receiving                | IA2              |  |
|  | 4-5                | Receiving nursing            | IA1              |  |
|  |                    | rehabilitation Not receiving |                  |  |

| Table A-1   |                           |   |                  |
|---|---------------------------|---|------------------|
| The RUG-III classification system Category  | ADL<br>index <sup>A</sup> | End splits  | RUG-III<br>group |
| 5.) Behavior problems only (Resident must have an ADL index of 10 or less and   | 6-10                      | Receiving nursing   | BB               |
| the presence of delusions, hallucinations, or one of more of the following 4 or more  | 6-10                      | rehabilitation  | BB1              |
| days per week: wandering, verbally abusive behavior, physically abusive behavior,   | 4-5                       | Not receiving   | BA2              |
| socially inappropriate/disruptive behavior, resisting care.   | 4-5                       | Receiving nursing rehabilitation Not receiving                                  | BA1              |
| 6.) Physical functioning reduced (Split into physical functioning groups is based on the ADL index and whether the number of nursing rehab activities is 2 or more) | 16-18                     | Receiving nursing   | PE2              |
|   | 16-18                     | rehabilitation  | PE1              |
|   | 11-15                     | Not receiving   | PD2              |
|   | 11-15                     | Receiving nursing   | PD1              |
|   | 9-10                      | rehabilitation  | PC2              |
|   | 9-10                      | Not receiving   | PC1              |
|   | 6-8                       | Receiving nursing   | PB2              |
|   | 6-8                       | rehabilitation  | PB1              |
|   | 4-5                       | Not receiving   | PA2              |
|   | 4-5                       | Receiving nursing rehabilitation Not receiving Receiving nursing rehabilitation | PA1              |
|   |                           | Not receiving   |                  |

A: The ADL index is based on the amount of support required for the following ADL activities: bed mobility, transferring, toilet use, and eating. It ranges from 4 (fully independent) to 18 (totally dependent, needs two-person assistance where applicable).